Gausstek Corp.

WIRE WOUND INDUCTORS *For power line*

Series LC - F

FEATURE

- Utilizing a miniaturized winding structure.
- These products provide low DC resistance and high current.
- Precision inductance tolerance is available.

APPLICATIONS

- Personal computers,Hard disk drives.
- xDSL modem and Cable modem.
- Digital camera and other electronic equipment

PRODUCT IDENTIFICATION

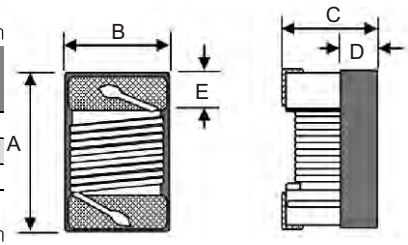
LC	06	F	03	4	J	470N
a	b	c	d	e	f	g

a : Type of Products - SMD Wire wound inductors for signal line
b : Dimension - 06 : 1.8mm max., 10 : 2.9mm max., 12: 3.6mm max.
c : Materials - X - No use
d : Width - 03=1.2mm max. 08=2.54mm max. 10=3.6mm max.
e : Packing - PCS/REEL - 2 = 2000, 4 = 4000, K = 2500
f : Tolerance - J : ±5% K : ±10%
g : Inductance - 1N2 = 0.0012 μH, 100N = 0.1 μH, 1U = 1.0 μH, 1U2 = 1.2 μH, 1M = 1000 μH, 1M2 = 1200 μH

SHAPES & DIMENSIONS

Unit : mm

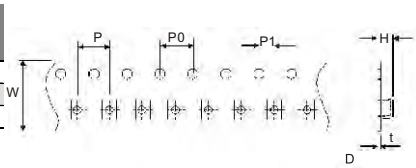
Type	Alias in inch	A (max.)	B (max.)	C (max.)	D (ref.)	E (± 0.1)
LC06F03	0603	1.8	1.2	1.1	0.45	0.33
LC10F08	1008	2.90	2.54	2.00	1.30	0.50
LC12F10	1210	3.60	2.90	2.50	1.10	0.50



TAPE DIMENSIONS

Unit : mm

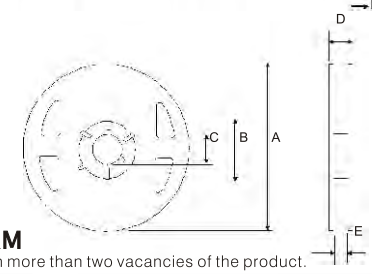
Type	Alias in inch	W	P	P_0	P_1	H	T
LC06F03	0603	8	4	4	2	1.05	0.22
LC10F08	1008	8	4	4	2	2	0.22
LC12F10	1210	8	4	4	2	2.5	0.26



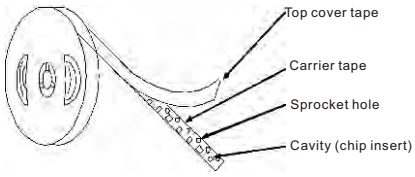
REEL DIMENSIONS

Dimensions in mm

Type	Alias in inch	Q'TY/ REEL	A	B	C	D	E
LC06F03	0603	4000PCS	180	60	13	14.4	8.4
LC10F08	1008	2000PCS	180	60	13	14.4	8.4
LC12F10	1210	2000PCS	180	60	13	14.4	8.4

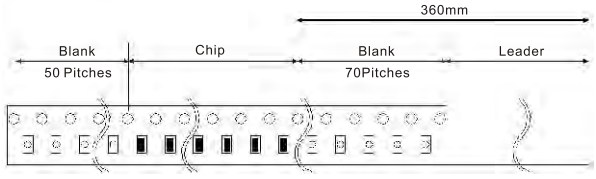


TAPPING FIGURE



PACKAGING FORM

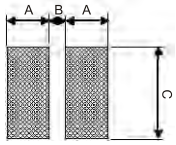
There shall not continuation more than two vacancies of the product.



COVER TAPE PEEL STRENGTH

The force for tearing off cover tape is 0.1~0.6(N) in the arrow direction at the following conditions:
Temperature : 5~35℃
Humidity : 45~85%
Atmospheric pressure : 860~1060 hpa

RECOMMENDED PATTERN

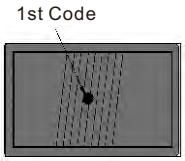


Unit : mm

Type	Alias in inch	A	B	C
LC06F03	0603	0.64	0.64	1.02
LC10F08	1008	1.02	1.27	2.54
LC12F10	1210	1.20	2.00	2.70

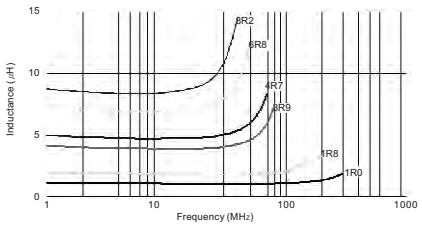
Series LC - F
ELECTRICAL CHARACTERISTICS
LC06F03

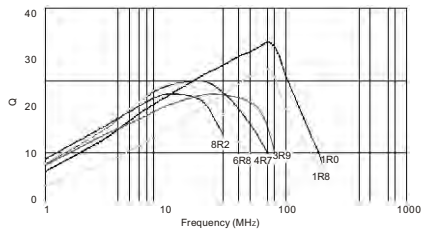
Part Number	L/MHz (μH)	Inductance tolerance	Q/MHz min.	SRF(MHz) min.	DCR(Ω) max.	Isat(mA) max.	Irms(mA) max.	Color coding
LC06F034□47N	0.047/7.9	J, K	12/7.9	2000	0.075	1800	1600	White
LC06F034□51N	0.051/7.9	J, K	12/7.9	1500	0.075	1800	1500	Violet
LC06F034□56N	0.056/7.9	J, K	7/7.9	1500	0.095	2200	1600	Blue
LC06F034□68N	0.068/7.9	J, K	10/7.9	1500	0.12	2200	1700	Gray
LC06F034□72N	0.072/7.9	J, K	12/7.9	1500	0.12	2200	1600	Brown
LC06F034□100N	0.10/7.9	J, K	12/7.9	1150	0.13	2200	1300	Black
LC06F034□120N	0.12/7.9	J, K	12/7.9	1100	0.15	1900	1300	Orange
LC06F034□150N	0.15/7.9	J, K	15/7.9	1050	0.15	1800	1100	Brown
LC06F034□180N	0.18/7.9	J, K	15/7.9	950	0.15	1800	1100	Green
LC06F034□220N	0.22/7.9	J, K	15/7.9	900	0.3	1300	990	Red
LC06F034□240N	0.24/7.9	J, K	15/7.9	850	0.16	1700	1100	Green
LC06F034□270N	0.27/7.9	J, K	15/7.9	835	0.3	1400	1000	Yellow
LC06F034□330N	0.33/7.9	J, K	15/7.9	725	0.4	1300	1000	Orange
LC06F034□360N	0.36/7.9	J, K	15/7.9	720	0.41	1300	990	Green
LC06F034□390N	0.39/7.9	J, K	15/7.9	680	0.41	1200	990	Blue
LC06F034□470N	0.47/7.9	J, K	15/7.9	640	0.43	1200	860	Black
LC06F034□560N	0.56/7.9	J, K	15/7.9	630	0.44	1200	860	Brown
LC06F034□650N	0.65/7.9	J, K	15/7.9	510	0.52	1000	810	Blue
LC06F034□680N	0.68/7.9	J, K	15/7.9	510	0.52	1000	780	Red
LC06F034□780N	0.78/7.9	J, K	15/7.9	465	0.63	990	780	Orange
LC06F034□820N	0.82/7.9	J, K	15/7.9	460	0.69	990	760	Yellow
LC06F034□900N	0.90/7.9	J, K	15/7.9	350	0.81	950	700	Black
LC06F034□1U	1.0/7.9	J, K	15/7.9	320	0.81	850	700	Green
LC06F034□1U2	1.2/7.9	J, K	15/7.9	270	0.87	850	590	Blue
LC06F034□1U5	1.5/7.9	J, K	15/7.9	230	0.96	830	570	Violet
LC06F034□1U8	1.8/7.9	J, K	15/7.9	210	1.1	820	540	Gray
LC06F034□2U2	2.2/7.9	J, K	15/7.9	115	1.2	720	540	White
LC06F034□2U7	2.7/7.9	J, K	15/7.9	100	1.38	700	460	Black
LC06F034□3U	3.0/7.9	J, K	15/7.9	90	1.45	680	430	Black
LC06F034□3U3	3.3/7.9	J, K	15/7.9	84	1.5	640	480	Brown
LC06F034□3U9	3.9/7.9	J, K	15/7.9	75	1.5	630	480	Red
LC06F034□4U7	4.7/7.9	J, K	15/7.9	67	2.1	530	380	Orange
LC06F034□5U6	5.6/7.9	J, K	15/7.9	55	2.37	510	360	Yellow
LC06F034□6U8	6.8/7.9	J, K	15/7.9	48	3.1	490	350	Green
LC06F034□7U8	7.8/7.9	J, K	15/7.9	40	3.35	420	320	Blue
LC06F034□8U2	8.2/7.9	J, K	15/7.9	38	3.5	450	320	Violet
LC06F034□10U	10/7.9	J, K	15/7.9	32	4.46	370	280	Gray
LC06F034□15U	15/7.9	J, K	14/7.9	25	9.50	240	170	White



COLOR CODING

CURVE





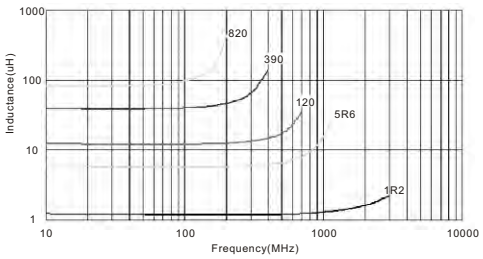
1. When ordering, please specify tolerance and packaging codes. Ex: LC06F03J1U
   Tolerance : J = ±5% , K = ±10%
   Packaging : Clear tape and reel { standard }.
2. L , Q、SRF : Agilent/HP E4991A+ Agilent/HP16197A
   (The electrical specification test by the smallest gap position) or HP16193A
3. Rdc : DIGITAL MILLIOHM METER Chroma 16502, or equivalent.
4. Isat for Inductance drop 35% from its value without current.
5. Operating temperature range from -25℃ to 105℃.
6. Irms For 40℃ rise form 25℃ ambient.

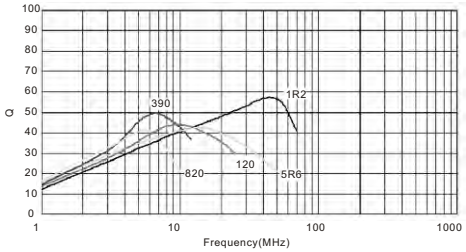
Series LC - F
ELECTRICAL CHARACTERISTICS
LC10F08

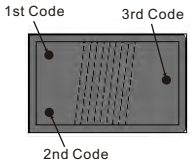
Part Number	L/MHz (μH)	Inductance tolerance	Q/MHz typ.	SRF(MHz) min.	DCR(Ω) max.	Isat(mA) max.	Irms(mA) max.	Color Coding		
								1st	2nd	3rd
LC10F082□78N	0.078/7.9	J, K	19/7.9	1000	0.042	3200	2700	Black	Violet	Gray
LC10F082□100N	0.10/25	J, K	35/25	1500	0.05	3200	2700	Brown	Red	Brown
LC10F082□220N	0.22/25	J, K	35/25	800	0.15	2900	2400	Red	Red	Brown
LC10F082□390N	0.39/25	J, K	35/25	460	0.2	2100	1800	Orange	White	Brown
LC10F082□470N	0.47/25	J, K	35/25	460	0.2	2100	1800	Yellow	Violet	Brown
LC10F082□560N	0.56/25	J, K	35/25	360	0.26	1800	1500	Green	Blue	Brown
LC10F082□680N	0.68/25	J, K	35/25	400	0.3	1700	1500	Blue	Gray	Brown
LC10F082□820N	0.82/25	J, K	35/25	360	0.35	1400	1200	Gray	Red	Brown
LC10F082□1U	1.0/7.9	J, K	32/7.9	340	0.34	1700	1200	Brown	Black	Red
LC10F082□1U1	1.1/7.9	J, K	25/7.9	300	0.34	1500	1100	Brown	Brown	Red
LC10F082□1U2	1.2/7.9	J, K	25/7.9	300	0.25	1600	1100	Brown	Red	Red
LC10F082□1U5	1.5/7.9	J, K	32/7.9	230	0.42	1200	1000	Brown	Green	Red
LC10F082□1U8	1.8/7.9	J, K	27/7.9	180	0.45	1100	800	Brown	Gray	Red
LC10F082□2U2	2.2/7.9	J, K	27/7.9	140	0.5	1100	900	Red	Red	Red
LC10F082□2U7	2.7/7.9	J, K	27/7.9	130	0.55	1000	900	Red	Violet	Red
LC10F082□3U3	3.3/7.9	J, K	27/7.9	125	0.6	1000	900	Orange	Orange	Red
LC10F082□3U9	3.9/7.9	J, K	27/7.9	100	0.8	990	800	Orange	White	Red
LC10F082□4U7	4.7/7.9	J, K	30/7.9	90	0.9	880	720	Yellow	Violet	Red
LC10F082□5U6	5.6/7.9	J, K	27/7.9	60	1	850	720	Green	Blue	Red
LC10F082□6U8	6.8/7.9	J, K	27/7.9	60	1.05	840	670	Blue	Gray	Red
LC10F082□8U2	8.2/7.9	J, K	25/7.9	55	1.2	810	640	Gray	Red	Red
LC10F082□10U	10/2.5	J, K	23/2.5	55	1.55	700	540	Brown	Black	Orange
LC10F082□12U	12/2.5	J, K	23/2.5	36	2.1	580	460	Brown	Red	Orange
LC10F082□15U	15/2.5	J, K	23/2.5	36	2.38	580	460	Brown	Green	Orange
LC10F082□18U	18/2.5	J, K	23/2.5	32	2.5	520	410	Brown	Gray	Orange
LC10F082□22U	22/2.5	J, K	23/2.5	29	2.92	500	400	Red	Red	Orange
LC10F082□27U	27/2.5	J, K	23/2.5	22	3.7	450	300	Red	Violet	Orange
LC10F082□33U	33/2.5	J, K	23/2.5	21	4.1	420	300	Orange	Orange	Orange
LC10F082□39U	39/2.5	J, K	18/2.5	15	5.5	340	270	Orange	White	Orange
LC10F082□47U	47/2.5	J, K	23/2.5	17	7.8	310	220	Yellow	Violet	Orange
LC10F082□68U	68/2.5	J, K	20/2.5	9	11.5	220	180	Blue	Gray	Orange
LC10F082□100U	100/1	J, K	13/1	4	13.2	210	170	Brown	Black	Yellow
LC10F082□150U	150/1	J, K	13/1	3	22.5	170	160	Brown	Green	Yellow
LC10F082□220U	220/1	J, K	13/1	3	26.5	160	100	Red	Red	Yellow
LC10F082□270U	270/1	J, K	13/1	2	32	135	95	Red	Violet	Yellow
LC10F082□330U	330/1	J, K	13/1	2	32.5	130	90	Orange	Orange	Yellow

1. When ordering, please specify tolerance and packaging codes. Ex: LC10F082K4U7
   Tolerance : J = ±5% , K = ±10%
   Packaging : Clear tape and reel { standard }.
2. L、Q、SRF : Agilent E4991A RF Impedance/Material Analyzer + Agilent 16197A Test Fixtures (The electrical specification test by the smallest gap position)
3. Rdc : Chroma Milliohmmeter 16502, or equivalent.
4. Isat for Inductance drop 35% from its value without current.
5. Operating temperature range from -25℃ to 105℃.
6. Irms for a 40℃ rise above 25℃ ambient.

CURVE







COLOR CODING

Series **LC - F**

ELECTRICAL CHARACTERISTICS

LC12F10

Part Number	L/MHz (μH)	Inductance tolerance	Q/MHz typ.	SRF(MHz) min.	DCR(Ω) max.	Isat(mA) max.	Irms(mA) max.	Color Coding		
								1st	2nd	3rd
LC12F102□270N	0.27/25	J, K	40/25	500	0.08	3900	3400	Red	Violet	Brown
LC12F102K330N	0.33/25	K	40/25	500	0.09	3400	2600	Orange	Orange	Brown
LC12F102□390N	0.39/25	J, K	40/25	500	0.09	3100	2200	Orange	White	Brown
LC12F102□470N	0.47/25	J, K	40/25	500	0.09	3200	2400	Yellow	Violet	Brown
LC12F102K560N	0.56/25	K	40/25	500	0.1	2900	2300	Green	Blue	Brown
LC12F102□680N	0.68/25	J, K	40/25	450	0.12	2500	2300	Blue	Gray	Brown
LC12F102□820N	0.82/25	J, K	40/25	450	0.105	2400	2300	Gray	Red	Brown
LC12F102□910N	0.91/25	J, K	45/25	410	0.165	2100	1600	White	Brown	Brown
LC12F102□1U	1.0/7.9	J, K	35/7.9	340	0.125	2400	1750	Brown	Black	Red
LC12F102K1U2	1.2/7.9	J, K	35/7.9	280	0.135	2400	1650	Brown	Red	Red
LC12F102K1U5	1.5/7.9	J, K	30/7.9	160	0.145	2100	1750	Brown	Green	Red
LC12F102□1U8	1.8/7.9	J, K	30/7.9	120	0.16	2100	1450	Brown	Gray	Red
LC12F102□2U	2.0/7.9	J, K	30/7.9	110	0.165	1800	1450	Red	Black	Red
LC12F102□2U2	2.2/7.9	J, K	30/7.9	100	0.17	1800	1450	Red	Red	Red
LC12F102□2U5	2.5/7.9	J, K	30/7.9	80	0.19	1700	1400	Red	Green	Red
LC12F102□2U7	2.7/7.9	J, K	30/7.9	75	0.185	1500	1300	Red	Violet	Red
LC12F102□3U3	3.3/7.9	J, K	30/7.9	70	0.21	1600	1300	Orange	Orange	Red
LC12F102□4U7	4.7/7.9	J, K	28/7.9	55	0.3	1300	1100	Yellow	Violet	Red
LC12F102□5U6	5.6/7.9	J, K	28/7.9	50	0.35	1100	1000	Green	Blue	Red
LC12F102□6U8	6.8/7.9	J, K	28/7.9	45	0.37	1100	1000	Blue	Gray	Red
LC12F102□8U2	8.2/7.9	J, K	28/7.9	45	0.47	940	900	Gray	Red	Red
LC12F102□10U	10/2.5	J, K	22/2.5	47	0.5	990	800	Brown	Black	Orange
LC12F102□12U	12/2.5	J, K	22/2.5	42	0.68	770	700	Brown	Red	Orange
LC12F102□15U	15/2.5	J, K	22/2.5	34	0.72	740	660	Brown	Green	Orange
LC12F102□18U	18/2.5	J, K	22/2.5	28	0.95	630	600	Brown	Gray	Orange
LC12F102□22U	22/2.5	J, K	22/2.5	25	1.1	640	550	Red	Red	Orange
LC12F102□27U	27/2.5	J, K	20/2.5	18	1.25	600	510	Red	Violet	Orange
LC12F102□33U	33/2.5	J, K	20/2.5	13	1.37	490	420	Orange	Orange	Orange
LC12F102□39U	39/2.5	J, K	20/2.5	13	1.85	400	400	Orange	White	Orange
LC12F102□47U	47/2.5	J, K	20/2.5	12	1.88	470	410	Yellow	Violet	Orange
LC12F102□56U	56/2.5	J, K	22/2.5	10	2.75	360	340	Green	Blue	Orange
LC12F102□68U	68/2.5	J, K	22/2.5	10	3	380	330	Blue	Gray	Orange
LC12F102□82U	82/2.5	J, K	22/2.5	10	4.1	300	280	Gray	Red	Orange
LC12F102□100U	100/1.0	J, K	15/1.0	8	4.682	310	260	Brown	Black	Yellow
LC12F102□120U	120/1.0	J, K	15/1.0	7	5.8	220	240	Brown	Red	Yellow
LC12F102□150U	150/1.0	J, K	13/1.0	7	6.102	260	230	Brown	Green	Yellow
LC12F102□180U	180/1.0	J, K	13/1.0	3	7.1	250	210	Brown	Gray	Yellow
LC12F102□220U	220/1.0	J, K	13/1.0	3	7.65	220	190	Red	Red	Yellow
LC12F102□270U	270/1.0	J, K	13/1.0	3	12.52	150	170	Red	Violet	Yellow
LC12F102□330U	330/1.0	J, K	13/1.0	3	12.620	170	160	Orange	Orange	Yellow
LC12F102□390U	390/1.0	J, K	13/1.0	3	23.000	120	140	Orange	White	Yellow
LC12F102□470U	470/1.0	J, K	13/1.0	3	25.000	135	130	Yellow	Violet	Yellow
LC12F102□500U	500/1.0	J, K	13/1.0	2	25.90	100	95	Green	Black	Yellow
LC12F102□560U	560/1.0	J, K	13/1.0	2	27.00	100	95	Green	Blue	Yellow

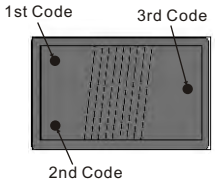
Series **LC - F**

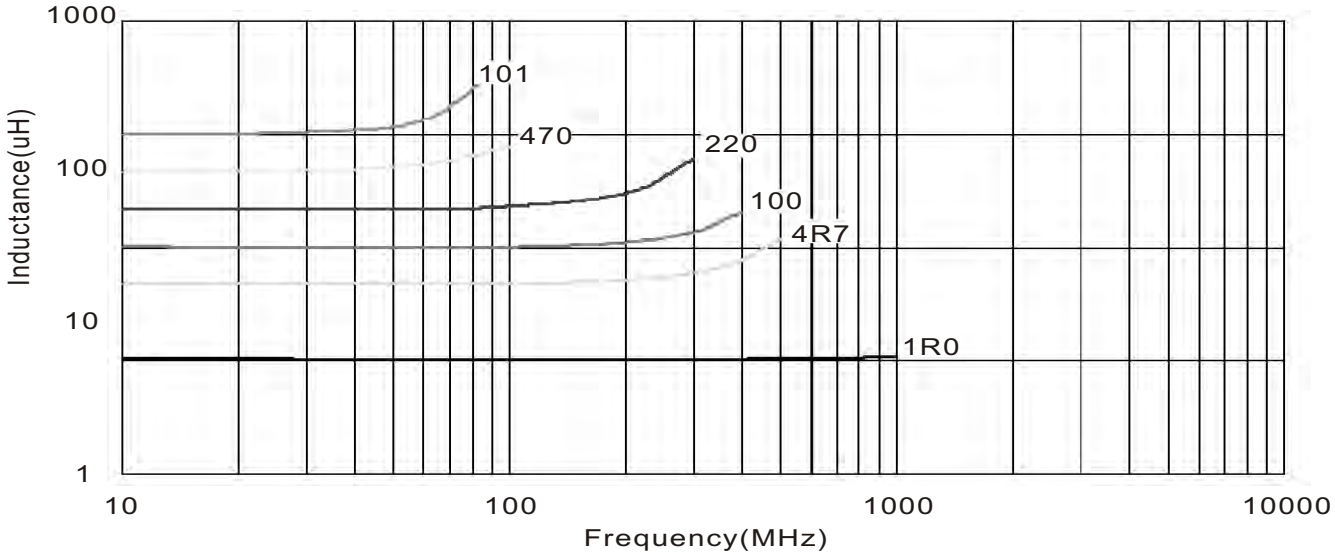
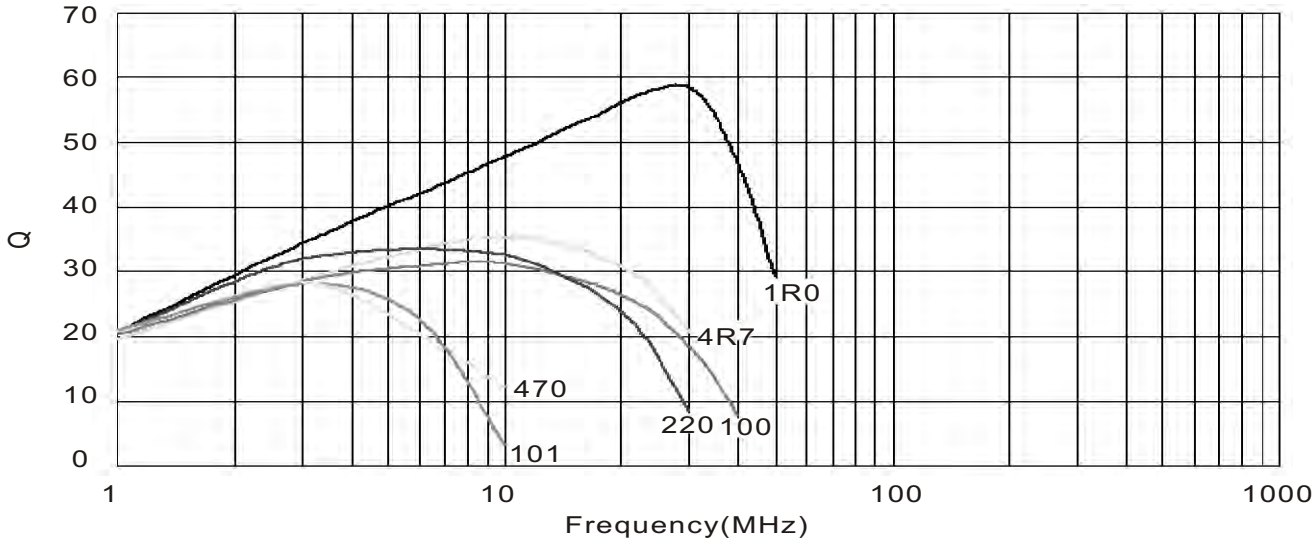
ELECTRICAL CHARACTERISTICS

LC12F10

Part Number	L/MHz (μH)	Inductance tolerance	Q/MHz typ.	SRF(MHz) min.	DCR(Ω) max.	Isat(mA) max.	Irms(mA) max.	Color Coding		
								1st	2nd	3rd
LC12F102□680U	680/1.0	J, K	13/1.0	2	31.00	100	95	Blue	Gray	Yellow
LC12F102□820U	820/1.0	J, K	10/1.0	2	42.00	100	95	Gray	Red	Yellow
LC12F102□1M	1000/1.0	J, K	10/1.0	2	46.00	95	95	Brown	Black	Red

1. When ordering, please specify tolerance and packaging codes. Ex: LC12F102K4U7
   Tolerance : J = ±5% , K = ±10%
   Packaging : Clear tape and reel { standard }.
2. L , Q : Agilent/HP E4991A+ Agilent/HP16197A
   (The electrical specification test by the smallest gap position) or HP16193A
3. SRF : Agilent/HP E4991A+ Agilent/HP 16197A
   (The electrical specification test by the smallest gap position) or HP16193A
4. Rdc : DIGITAL MILLIOHM METER Chroma 16502, or equivalent.
5. Isat: Idc obtained when Inductance drop 35% from its value without current.
6. Irms for 40℃ rise from 25℃ ambient.
7. Operating temperature range from -25℃ to 105℃.



COLOR CODING

CURVE